Table of Contents

Quick Installation 3

Item Checklist.....3

Before Installation.....3

Layout.....4

Jumpers/ Connectors.....6

Features 16

Motherboard Component Placement 16

Block Diagram.....18

Specifications.....19

Hardware Setup 21

Install the Processor.....21

Install Memory Modules.....22

IWILL 6-Channel Audio/SuperAudio(Optional).....23

ATX Power Supply Connector.....26

Rear I/O Panel.....27

BIOS Setup 28

BIOS Setup.....28
Main Menu.....30
Standard CMOS Features.....30
Advanced BIOS Features 34
Advanced Chipset Features.....37
Integrated Peripherals.....40
Power Management Setup.....44
PnP/ PCI Configurations.....47
PC Health Status.....49
IWILL Smart Setting.....49
Load Fail Safe Defaults.....52
Load Optimized Defaults.....52
Set Supervisor/ User Password Setting.....53
Save & Exit Setup.....54
Exit Without Saving.....54

On Board Audio 55

Audio Features.....55
Driver Installation.....57
The Audio Rack.....59

Installing Support Software 61

Quick Installation

Item Checklist

[ ] The Motherboard
[ ] Operation manual
[ ] ATA 66/100 IDE cable
[ ] Floppy cable
[ ] Power Installer CD
[ ] 6-Channel Audio Port Bracket

Optional

IWILL SuperAudio (for SPDIF)
USB riser kit
Thermal Sensor for System
Infrared port cable

Before Installation

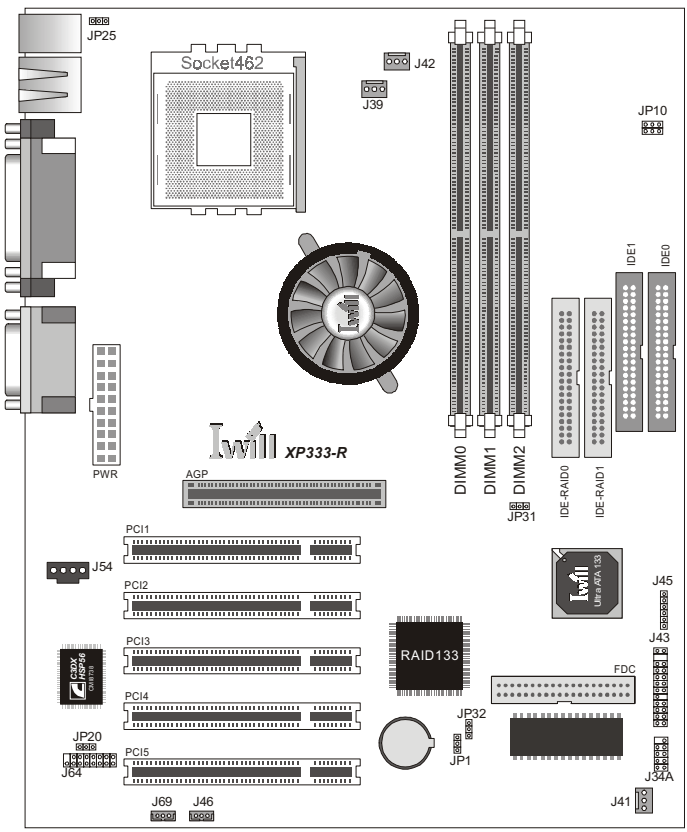
Users must follow these guidelines to ensure the motherboard is protected during installation:
1.Make sure your computer is powered-off and unplugged whenever working inside the computer.

2.The motherboard, like all other electronic equipment, is sensitive to static. Please take the proper precautions when handling it. If possible, ground yourself by touching a metal table or desk. Keep the board in its anti-static bag until it is ready to be installed in your system.

3.Keep all magnets away from both your hard and floppy disk drives, especially magnetic screwdrivers.

4.Keep water and liquids away from your computer and its components.

XP333-R Motherboard Layout

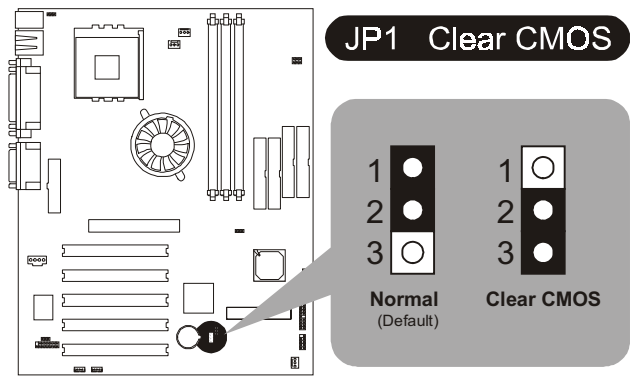


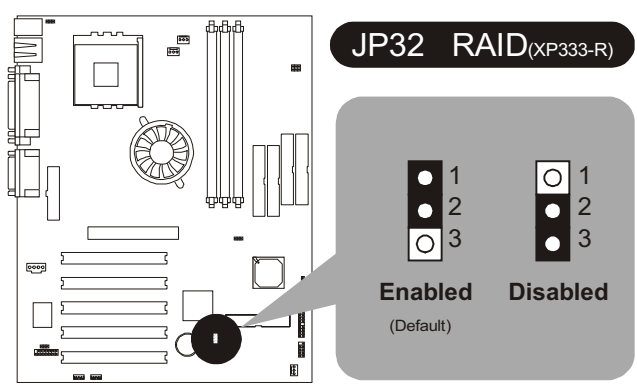
Jumpers & Connectors

JP1	Clear CMOS Jumper
JP10	VIO Selection Jumper
JP20	Audio Jumper
JP25	Keyboard Power On Jumper
JP31	Front Side Bus Jumper
JP32	Onboard RAID Jumper
J34A	EXT USB Connector
J39	CPU Fan Connector
J41	System Fan Connector
J42	Auxiliary Fan Connector
J43	Front Panel Connector
J45	Infrared Connector
J46	Wake-ON-LAN Connector
J54	CD-IN Connector
J64	SPDIF or 6-Channel Audio Port Bracket Connector [Bracket Optional]
J69	Wake-ON-MODEM Connector

Please Note: The XP333 motherboard does not have the onboard RAID feature or its connectors.

Jumpers/Connectors



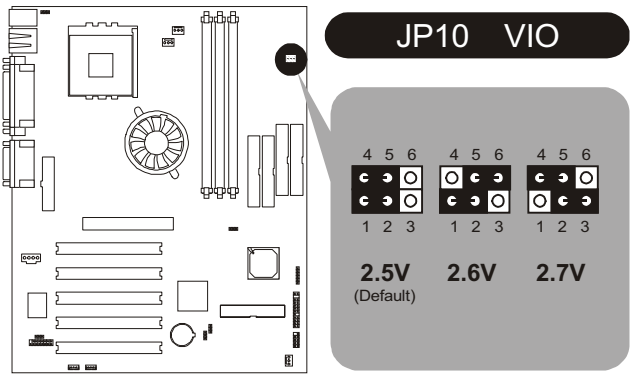


JP1

JP1 controls the Clear CMOS feature.

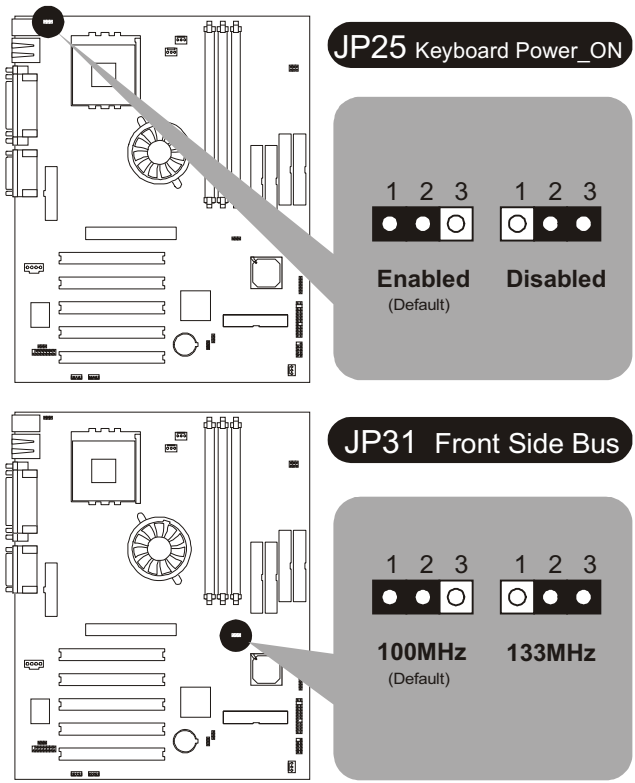
JP32

JP32 controls the onboard RAID feature on the XP333-R. If you have the XP333-R and will use the RAID feature, please refer to the additional RAID Administrator User's Manual supplied with the XP333-R for information on setting up and using a RAID array.



JP10

JP10 sets the VIO setting. make sure this is correct for your CPU.

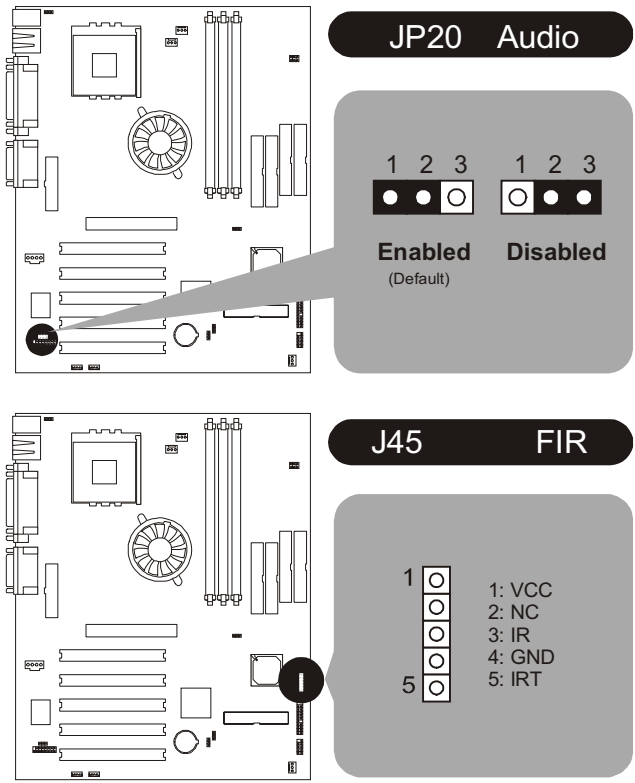


JP25

JP25 configures the Keyboard Power On feature in hardware. This must be set to be Enabled for the Keyboard Power On features in the BIOS CMOS Setup Utility to have effect.

JP31

JP31 sets the Front Side Bus speed. make sure the setting conforms to your CPU's specifications.

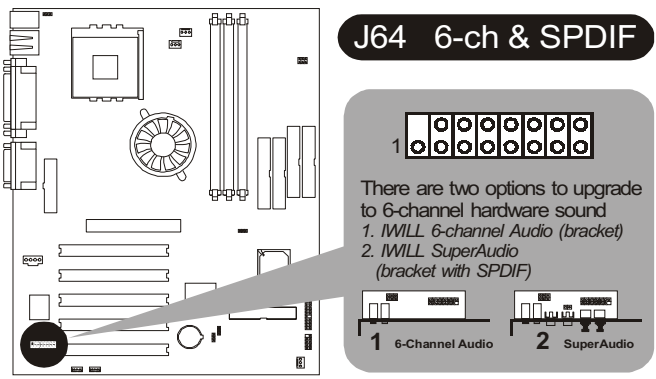


JP20

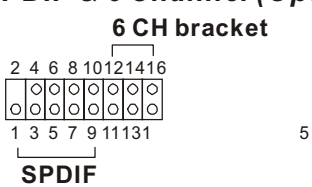
JP20 controls the onboard audio feature. If you want to use an alternate audio expension card, set this to Disabled.

J45

J45 is a connector for an optional IR port module. The lead from the module plugs onto this connector. Refer to the module installation instructions for more information.



J64
[SPDIF & 6 Channel (Optional)]

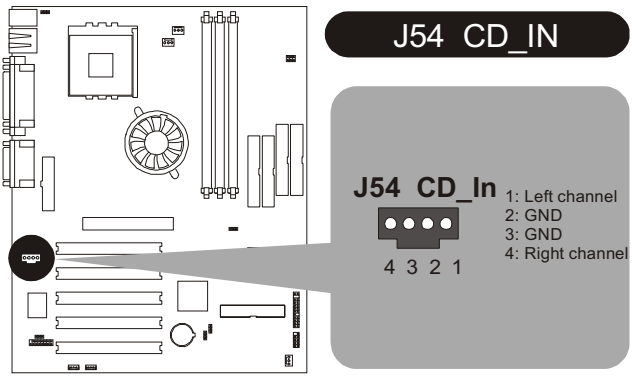


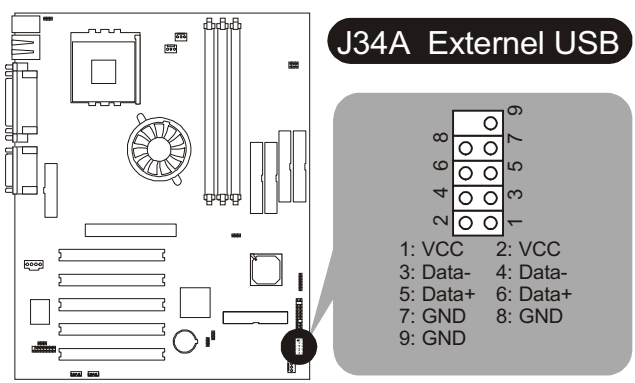
Pin Assignment

1: +12V	2: NC
3: NC	4: SPDIFO
5: SPDIFI	6: GND
7: NC	8: SPGPIO
9: NC	10: NC
11: BASS	12: XREARR
13: GND	14: GND
15: CENTER	16: XREARL

J64

J64 is a connector for the supplied 6-Channel Audio port bracket that comes with this motherboard or for the optional Super Audio port bracket that provides additional digital audio connections.



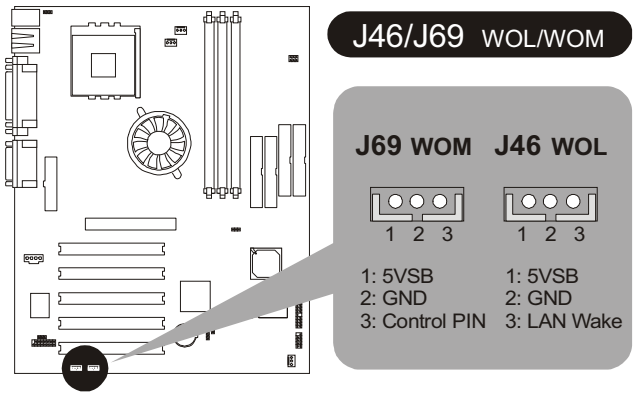


J54

J54 is an audio-in connector for an audio cable from an external device with an audio connection such as a CD-ROM drive.

J34A

J34A is a connector for an optional dual USB 1.1 port module. The connector cable from the module plugs onto the J34A connector.

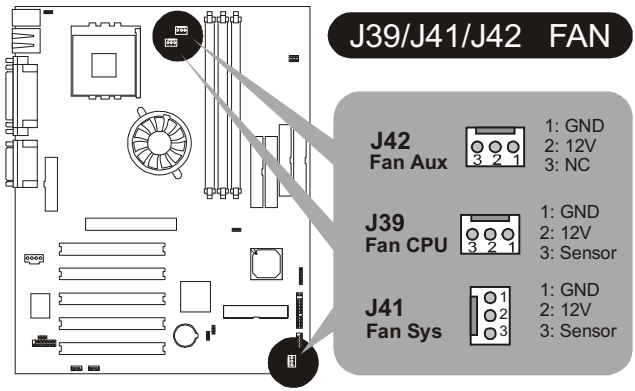


J69

J69 is a connector for the lead from an internal modem that supports the Wake-On-Modem feature.

J46

J46 is a connector for the lead from an internal Network Interface Card that supports the Wake-On-LAN feature.



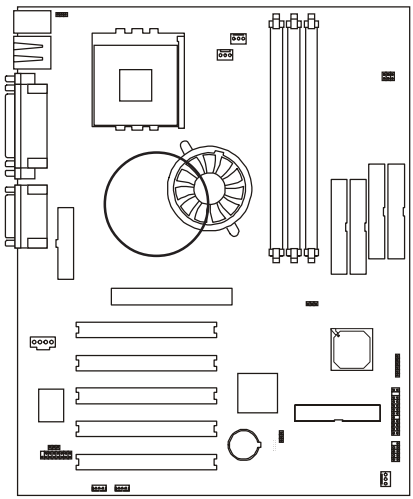
J39

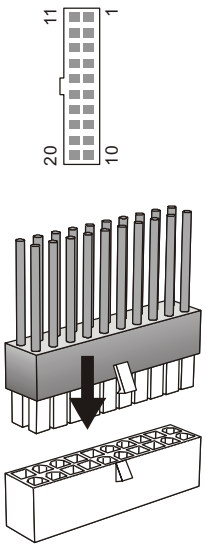
J39 is a power connector for the cooling fan from a heatsink/fan CPU cooler. The power cable from the fan plugs onto the connector.

J41 & 42

J41 & J42 are power connectors for cooling fans mounted on the system housing. The power cable from a fan plugs onto the connector.

J37 ATX Power Connector

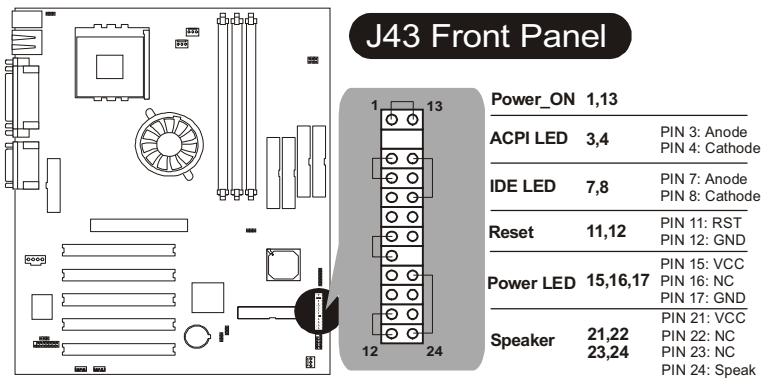




J37

J37 is a connector for the power connector from a standard ATX power supply.

J43 Front Panel Connector

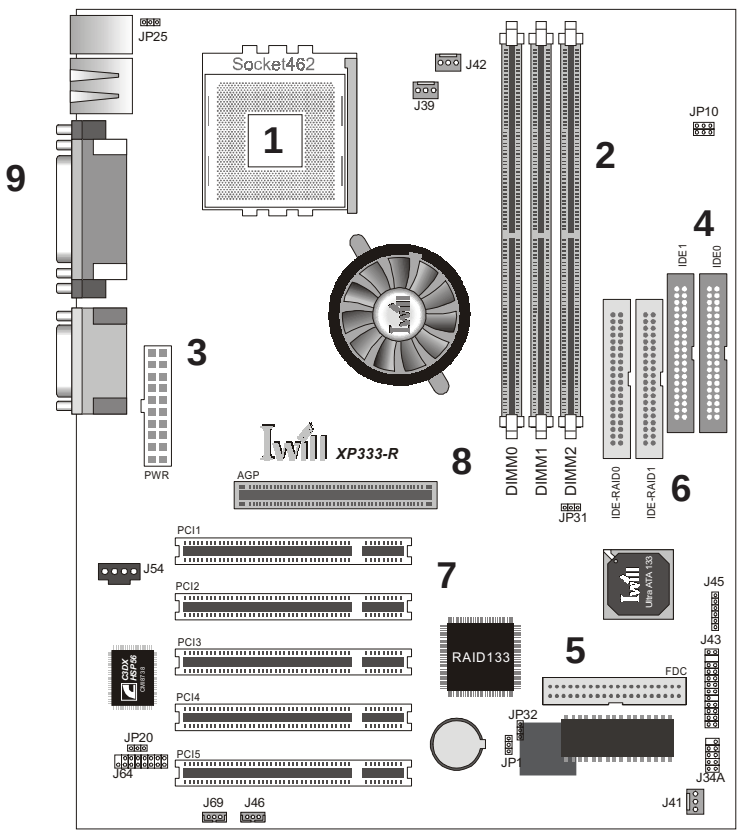


J43

J43 is a connector for connecting cables from system housing switches amd indicator lights in addition to a housing mounted system speaker.

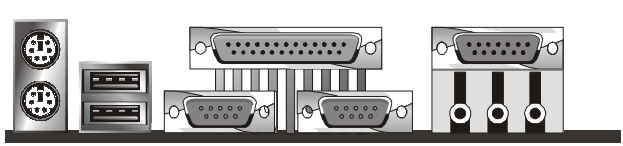
Features

Motherboard Component Placement



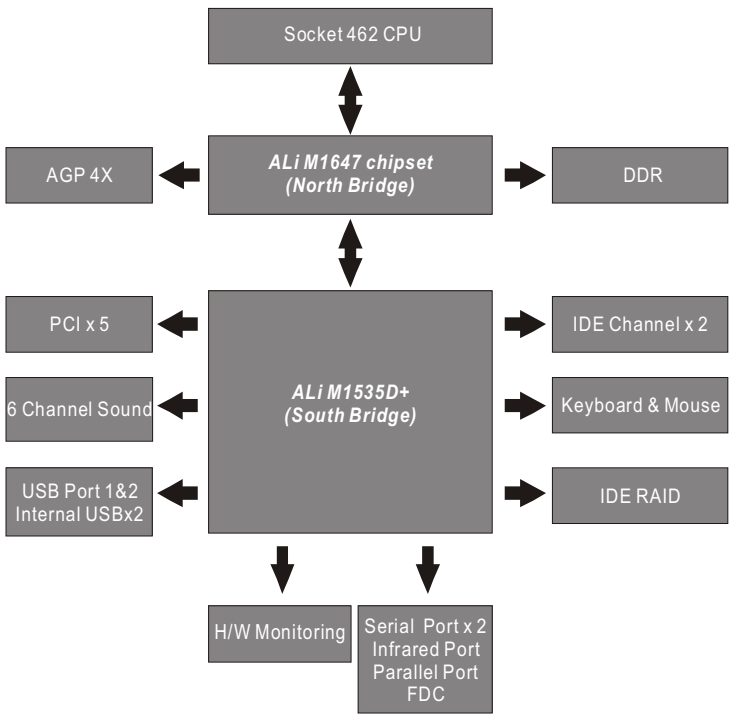
Components

1 CPU Socket
2 DIMM sockets
3 ATX Power connector
4 IDE connectors
5 FDC connector
6 Onboard RAID IDE Connectors (XP333-R)
7 PCI slots
8 AGP slot
9 Rear I/O Panel



PS/2 Mouse
Keyboard
USB
Parallel & 2 Serial
Game/MIDI & Audio

Block Diagram



Specifications

Processor I/F (Socket A)

-Supports Socket A Processors
-Supports 66M/100M/133/166M FSB (Front Side Bus)
-Supports Single Athlon / Duron /Athlon XP /Mogon series

CPU Frequency/Voltage Select

-Supports Vcore Multiplier selection by BIOS(1.050V to 1.825V)
-Supports increase 10% CPU Voltage
-Supports CPU External Frequency selection (up to 225 MHz)

ChipSet (Marking, Packing)

North Bridge ALI 1647 VER C
South Bridge ALI 1535D plus

Memory

-Supports DDR Memory (PC2700/PC2100/PC1600 DDR)
-Supports 6 banks up to 3GB DRAM (512Mb x 8 or x 16 DRAM) for Nonregistered or Unbuffered DDR modules

Graphics

-Supports AGP2X/AGP4X/AGP Pro Slot

General I/O

-PCI 2.2 compliance
-Supports 32-bit/33MHz PCI interface
-Supports LPC interface
-Supports ATA33/ATA66/ATA100 IDE interface
-Supports Floppy interface
-Supports 16550A UART interface
-Supports ECP/EPP interface
-Supports PS2 interface
-Supports SIR/CIR interface
-Supports USB interface

RAID Support

-Supports 2 ATA66/ATA100 channels
-Supports RAID Level 0/1/0+1
-Supports “SPARE” feature
-Supports Win9X/WinNT/Win2K

Sound support

-C-Media CMI8738-6CH Sound Chip on board
-Supports Game/MIDI interface
-Supports Audio interface
-Supports Win9X/WinNT/Win2K

Management

-Supports voltage monitoring (Vcore/Vsb)
-Supports fan control signal (CPU/SYS)
-Supports temperature sensor (CPU/SYS)
-Supports CPU Over Temperature Shutdown

-Supports Power on by Ext. Modem/Int. Modem/RTC/ PME(Wake on Ring)
-Supports Resume by Lan/Ext. Modem/Int. Modem/PS2 Keyboard/PS2 Mouse/RTC/PME
-Supports ACPI
-Supports APM
-Supports DMI
-Supports SMBUS
-Supports PnP
-Supports BIOS ROM Flash Control (jumper provides H/W protection)
-Supports Manually Assigning PCI IRQs

Power Requirements

-Onboard DC/DC switching voltage regulator supports Vcore up to 45A current-
-Discrete voltage regulator for AGP port
-Supports adjustable Vcore by BIOS

Expansion Slot, Sockets and Connectors

-Two Socket370 socket
-Three DDR sockets
-One AGP Pro slots
-Five 32bit/33MHz Bus Master PCI slots
-Two IDE connectors
-Two IDE RAID connectors
-One FDC connector
-Two External Serial Port connectors
-One External Parallel Port connectors
-One External PS/2 Mouse & Keyboard connector
-One External Game/MIDI/AUDIO connector
-One Internal CD-in connector
-One External USBx2 connectors
-Two Internal USBx2 connectors
-One Internal IR connector
-One Internal WOL connector
-One System temperature sensor
-One CPU fan connector with PWM control
-Tow fan sencer connector
-One Chassis Intrusion header
-One Internal WOM connector
-One Internal SMBus connector
-One ATX 20-pin power connector

Others

-ATX Form Factor 305mm x 226mm
-4 Layer design

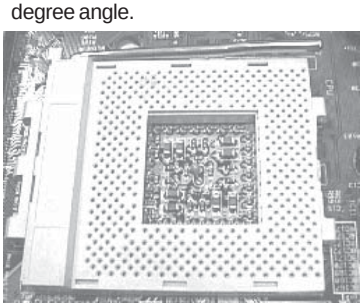
Hardware Setup

Install the Processor

You must install a combination heatsink and fan CPU cooler on top of the CPU after you install it in the CPU socket. The CPU cooler will clip onto the CPU socket in some fashion. Your CPU may have come with a cooler or you may need to buy one separately. If you have to buy one, make sure it is designed for use with your CPU. In either case, follow the instructions that come with the CPU cooler to install it. make sure there is sufficient air flow around the cooler assembly for adequate ventilation.

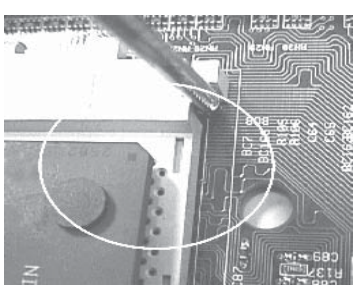
Step1:

Pull the socket lever sideways away from the socket. Raise it into a 90-degree angle.



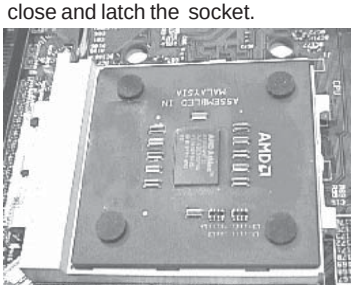
Step2:

Locate Pin 1 on the socket and match it with the Pin 1 corner of the CPU. Insert the CPU in the socket.



Step3:

Press the socket lever down to close and latch the socket.



Install Memory Modules

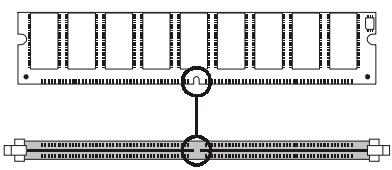
This motherboard has three DIMM memory sockets and supports up to 3GB of system memory. To install module do as follows.

Step 1:

Press the DIMM socket retaining latches outward to allow space to insert the module.

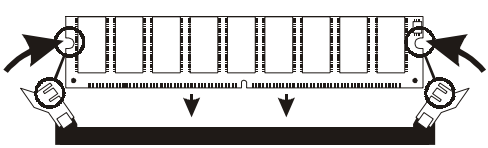
Step 2:

Orient the module to the socket. The socket receptacle is divided into two sections of different length so that the module will only insert in the correct orientation.



Step 3:

Hold the module at 90° to the board and insert it into the DIMM socket.



Step 4:

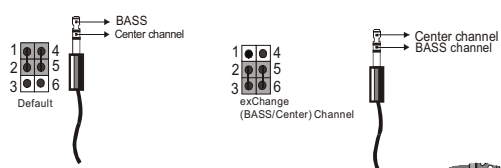
Press the module into the socket until the reataining latches rotate upward and snap into the notches on the module.

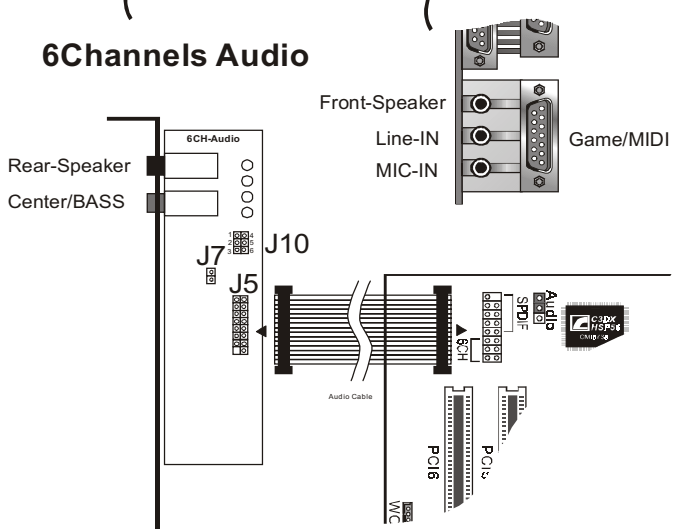
IWILL 6Channels Audio/ SuperAudio (Optional)

Connectors and Jumpers

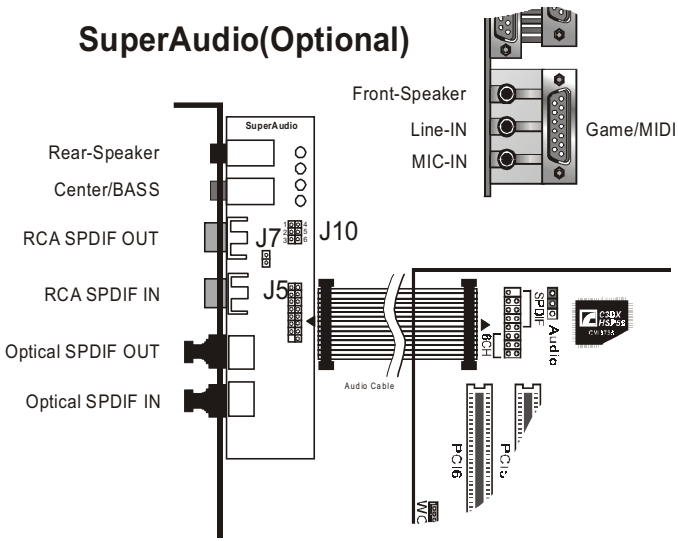
JP5	Audio Extension (Digital I/O) Connector
JP7	CD-SPDIF IN
JP10	BASS/Center Select
Line-IN	LINE-IN Connect to the audio output port of stereo
Mic-IN	Connect to the Microphone (Mono)
Front- Speaker	Output to speakers with the amplifier or earphones or AUDIO-IN of home stereo
Rear-Speaker	Connect to the rear speakers while four/six channel speakers mode is enabled
Center/BASS	Connect to the center speaker and BASS while six channel speakers mode is enabled
GAME/MIDI	Connect to Joystick or devices using MIDI interface
RCA SPDIF IN/OUT	Connects to digital audio devices such as DAT and MiniDisc recorders, via RCA input/output
Optical SPDIF IN/OUT	Connects to digital audio devices such as DAT and MiniDisc recorders, via optical input/output

JP10 function



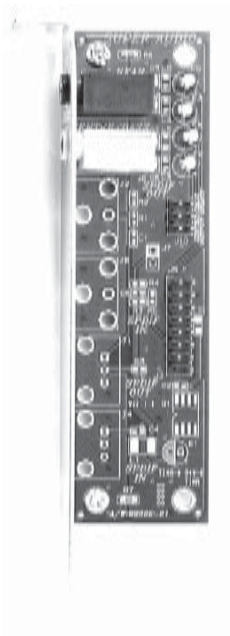


SuperAudio(Optional)

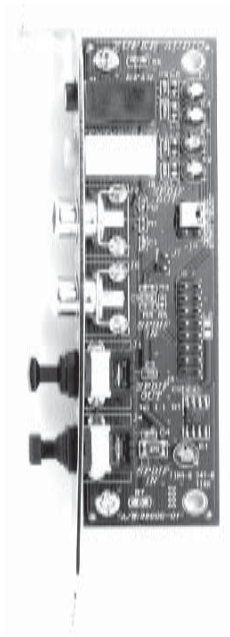


Please remove the cap
from the optical cable first

IWILL 6-Channel Audio



IWILL SuperAudio (Optional)



ATX Power Supply Connector

Power on procedures

Step Description

1 After all connections are made, replace the system case cover.

2 Be sure that all switches are off.

3 Connect the power cord into the power supply located on the back of your system case.

4 Connect the power cord to a power outlet that is equipped with a surge protector.

5 Most system power supplies support either 110V or 220V by setting a switch on the supply. Switch your power supply to the correct supply voltage if necessary.

6 Turn on your system in the following order:

a. The monitor

b. The external devices

c. The computer system.

The power LED on the front panel of the chassis will light. After few seconds, the system will then run power-on tests. Some additional messages will appear on the screen during the test. If you do not see anything within 30 seconds from the time you turn on the power, the system may have failed a power-on test. Recheck the jumper settings and connections or call your retailer for assistance.

Rear I/O Panel

Function	Color	Description
PS/2 Mouse	Green	This connector can be used to support a PS/2 mouse
PS/2 keyboard	Purple	This connector can be used to support a PS/2 keyboard.
USB	Black	This motherboard has two USB ports, any USB-compatible peripherals and/or hub can be connected into either USB port.
Serial port	Teal	One serial port is ready for a modem or other serial devices.
Parallel port	Burgundy	This connector is used for printers, or other parallel devices.
Joystick/Midi	Gold	You may connect joysticks or game pads to this connector for playing games, or connect MIDI devices for playing / editing professional audio.
Audio Ports		
Line Out	Lime	For connecting headphones or powered speakers.
Line In	Light Blue	Audio sources can be recorded by your computer or played through the Line Out connector.
Mic	Pink	A microphone can be connected for inputting audio.

BIOS Setup

BIOS Setup

Upgrade BIOS

The BIOS can be upgraded from a diskette with the Award Flash utility — AWDFLASH.EXE. The BIOS image file, and update utility are available from IWILL's WEB site: ***support.iwill.net***

Enter BIOS setup program

Power-on the system by either pressing the Power-On button, or by using any of the power-on features provided by the motherboard. Then, press the <Del> key after the Power-On Self Test (POST), and before the scanning of IDE devices. Simply look for the message "Press DEL to enter SETUP" displayed at the bottom of the screen during the boot up process. If the message disappears before you've had a chance to respond, you can restart the system by turning off the system power then turn it on again, or by pressing the "RESET" button on the system case, or pressing the <Ctrl>, <Alt> and <Del> keys simultaneously.

Generally, the BIOS default settings have been carefully chosen to maximize performance and reliability. It is inadvisable to change any setting without full understanding of the effect. *Do not* change any setting unless you fully understand what it will do. We also strongly recommend that you *do not* update the BIOS if the system works correctly.

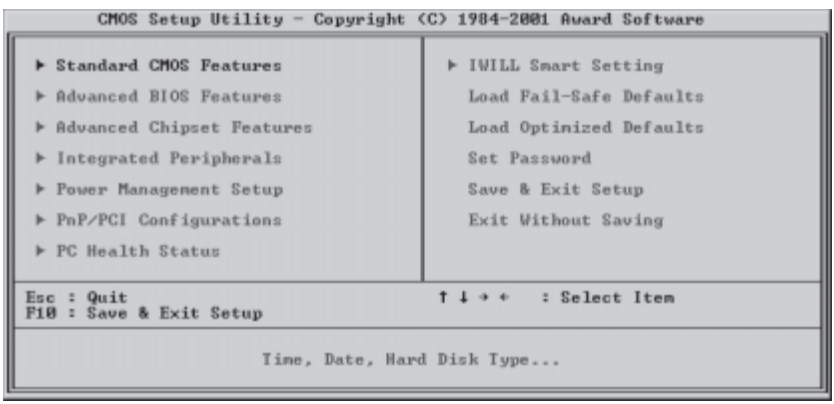
Using BIOS setup program

↑Up	Move to the previous field
↓Down	Move to the next field
←Left	Move to the field on the left hand side
→Right	Move to the field on the right hand side
<Esc>	Quit from setup program without saving changes,or Exit from current menu page and return to main menu page
<PgUp> or <+>	Select the previous value for a field
<PgDn> or <->	Select the next value for a field
<F1>	General Help
<F2>	Item Help
<F5>	Previous Values
<F6>	Fail-Safe Defaults
<F7>	Optimized Defaults
<F10>	Save the current value and exit setup program

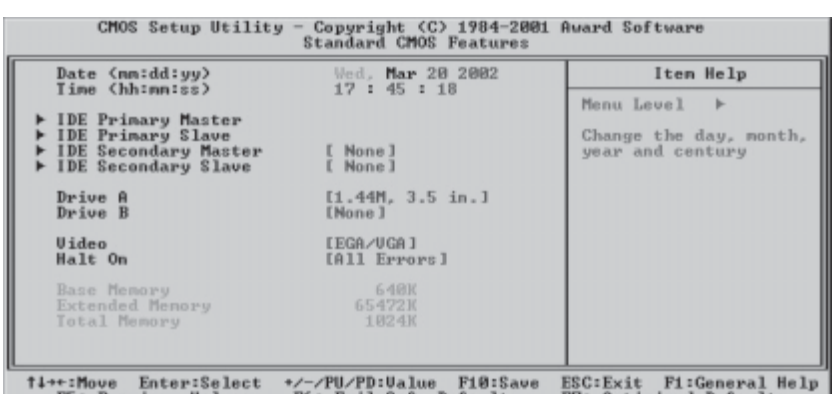
If the system is no longer able to boot after changing the settings, the only way to recover it is to clear the data stored in RTC CMOS. To reset the RTC CMOS data, take the JP1 jumper cap off pins 1-2, place onto pins 2-3, and then place back onto pins 1-2 again. This will return the RTC to the default setting. Then, run the BIOS setup program and choose Load Optimized Defaults to select the original manufacturer default settings. Save and Exit to record the settings to CMOS memory.

Main Menu

The main menu allows you to select from several setup pages. Use the arrow keys to select among these pages and press <Enter> key to enter the sub-menu. A brief description of each highlighted selection appears at the bottom of the screen.


CMOS Setup Utility - Copyright (C) 1984-2001 Award Software
▶ Standard CMOS Features
▶ Advanced BIOS Features
▶ Advanced Chipset Features
▶ Integrated Peripherals
▶ Power Management Setup
▶ PnP/PCI Configurations
▶ PC Health Status
▶ IWILL Smart Setting
Load Fail-Safe Defaults
Load Optinized Defaults
Set Password
Save & Exit Setup
Exit Without Saving
Esc : Quit
F10 : Save & Exit Setup
↑ ↓ → ← : Select Item
Time, Date, Hard Disk Type...

Stardard CMOS features


CMOS Setup Utility - Copyright (C) 1984-2001 Award Software
Standard CMOS Features
Date (mm:dd:yy) Wed, Mar 20 2002
Time (hh:mm:ss) 17 : 45 : 18
▶ IDE Primary Master
▶ IDE Primary Slave
▶ IDE Secondary Master [None]
▶ IDE Secondary Slave [None]
Drive A [1.44M, 3.5 in.]
Drive B [None]
Video [EGA/VGA]
Halt On [All Errors]
Base Memory 640K
Extended Memory 65472K
Total Memory 1024K
Item Help
Menu Level ▶
Change the day, month, year and century
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optinized Defaults

Date

This field specifies the current date. The date format is <day>,<month>, <date>, and <year>.

Time

This field specifies the current time. The time format is <hour>, <minute>, and <second>. The time is calculated based on the 24-hour (military-time) clock.

IDE Primary Master / Primary Slave / Secondary Master / Secondary Slave

Press “Enter” to enter next page for detail hard drive setting.

IDE HDD Auto-Detection

This allows you to manually Auto-Detect IDE hard disk drive Capacity, and its parameters.

IDE Primary Master / Primary Slave / Secondary Master / Secondary Slave

This field specifies type of drive that corresponds to the drive in stalled in your system. Leave it on the Auto setting. If you select the User setting, you have to specify the correct number of Cylinders, Heads, and Sectors manually.

Access MODE

This field specifies the IDE translation mode. Leave it on the Auto setting.

Capacity automatically displays the disk drive size

Drive A / Drive B

This field specifies the traditional type of floppy drives.

None **(*Drive B default)**	No Floppy drive is connected
360K, 5.25 in.	Specifies extended CHS translation mode
1.2M, 5.25 in.	A 1.2M floppy drive is connected
720K, 3.5 in.	A 720K floppy drive is connected.
1.44M, 3.5 in. **(*Drive A default)**	A 1.44M floppy drive is connected
2.88M, 3.5 in.	A 2.88M floppy drive is connected

Floppy 3 Mode Support

3 Mode floppy drive is a type of 3.5-inch drive used by NEC PC98 computers. It supports both 1.2M and 1.44M formats using the same drive. This field specifies which drive supports 3 Mode. When a floppy drive is specified to support 3 Mode, the respective drive setting in the “Drive A / Drive B” field will be invalid.

Disabled **(Default Value)**	No 3 Mode drive is connected
Drive A	A 3 Mode drive is connected as drive A
Drive B	A 3 Mode drive is connected as drive B
Both	Both drive A and drive B are 3 Mode drives

Video

The default setting is EGA/VGA. DOn't chnage it.

Halt On

All Errors **(Default Value)**	Each time the BIOS detects a non-fatal error, the system will stop and display an error message
No Errors	The system will stop for any errors that are detected
All, But Keyboard	The system will stop for any errors except keyboard error
All, But Diskette	The system will stop for any errors except diskette error
All, But Disk/Key	The system will stop for any errors except diskette and key board errors

Base Memory

The POST (Power-On Self Test) determines the amount of base (conventional) memory installed in the system. The value of the base memory is typically 640K. This field has no options.

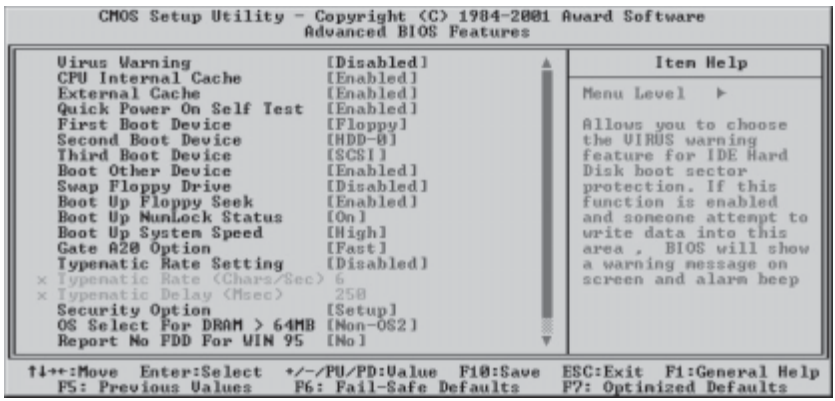
Extended Memory

The BIOS determines how much extended memory is present during the POST. This is the amount of memory located above 1MB in the processor's memory address map. This field has no options.

Total Memory

Displays the total memory available in the system

Advanced BIOS Features


CMOS Setup Utility - Copyright (C) 1984-2001 Award Software
Advanced BIOS Features
Virus Warning [Disabled]
CPU Internal Cache [Enabled]
External Cache [Enabled]
Quick Power On Self Test [Enabled]
First Boot Device [Floppy]
Second Boot Device [HDD-0]
Third Boot Device [SCSI]
Boot Other Device [Enabled]
Swap Floppy Drive [Disabled]
Boot Up Floppy Seek [Enabled]
Boot Up NumLock Status [On]
Boot Up System Speed [High]
Gate A20 Option [Fast]
Typematic Rate Setting [Disabled]
x Typematic Rate (Chars/Sec) 6
x Typematic Delay (Msec) 250
Security Option [Setup]
OS Select For DRAM > 64MB [Non-OS2]
Report No FDD For WIN 95 [No]
Item Help
Menu Level ▶
Allows you to choose the VIRUS warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempt to write data into this area , BIOS will show a warning message on screen and alarm beep
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

Virus Warning

When this function is enabled and any attempt to write data into this area is made, the BIOS monitor will display a warning message on screen and beep. If you want to run an anti-virus program, we recommend you leave this disabled.

[Enabled, Disabled (**Default Value**)]

CPU Internal Cache

This field configures the CPU internal cache(L1 cache).

[Enabled(**Default Value**),Disabled]

External Cache

This field configures the system's external cache(L2 cache).

[Enabled(**Default Value**), Disabled]